

In the Claims:

1. (currently amended) A method of altering the appearance of a three-dimensional object formed by a solid freeform fabrication apparatus, the three-dimensional object formed from a build material comprising at least one polymer component and having a surface and an internal volume, the method comprising the steps of:

- (a) applying a fluid medium to the three-dimensional object at a temperature above the glass transition temperature of the polymer component, the fluid medium carrying an infiltration agent and permeating the three-dimensional object at a temperature above a glass transition temperature of the polymer component;
- (b) maintaining the application of the fluid medium to the three-dimensional object to allow the infiltration agent to penetrate the three-dimensional object and colorize the entire internal volume of the object to thereby establish a desired appearance of the three-dimensional object; and
- (c) terminating the application of the fluid medium carrying the infiltration agent to the three-dimensional object.

2. (original) The method of claim 1 wherein the solid freeform fabrication apparatus for forming the three-dimensional object is selected from the group consisting of a stereolithography apparatus, a selective deposition modeling apparatus, a laminated object manufacturing apparatus, a laser sintering apparatus, and combinations thereof.

3. (original) The method of claim 1 wherein the step of applying the fluid medium to the three-dimensional object is achieved by submersing at least a portion of the three-dimensional object in a bath of the fluid medium.

4. (original) The method of claim 1 wherein the fluid medium is selectively applied to only a portion of the three-dimensional object to alter the appearance of the portion of the three-dimensional object in which the fluid medium is selectively applied.
5. (original) The method of claim 1 wherein the step of applying the fluid medium to the three-dimensional object is achieved by spraying the fluid medium on the three-dimensional object.
6. (original) The method of claim 1 wherein the infiltration agent is a colorant.
7. (original) The method of claim 1 wherein the infiltration agent is a colorant selected from the group of primary component colors consisting of cyan, magenta, yellow, black, and combinations thereof.
8. (original) The method of claim 1 wherein the infiltration agent is phosphorescent.
9. (original) The method of claim 1 wherein the infiltration agent is conductive.
10. (original) The method of claim 1 wherein the polymer component is selected from the group consisting of a thermoplastic material, a thermosetting material, and combinations thereof.
11. (original) The method of claim 1 wherein the polymer component comprises epoxies, acrylates, vinyl ethers, unsaturated polyesters, bismaleimides, and combinations thereof.

12. (original) The method of claim 1 wherein the polymer component comprises nylon, carbon-hydrogen waxes, acrylics, Acrylonitrile Butadiene Styrene, polyimide resins, polycarbonates, polyurethanes, and combinations thereof.

13. (original) The method of claim 1 wherein the fluid medium comprises alcohol, ketones, esters, pyrrolidinone, and combinations thereof.

14. (original) The method of claim 1 wherein the fluid medium comprises fatty acid esters derived from organic oil-based fluids.

15. (original) The method of claim 14 wherein the organic oil-based fluids are selected from the group consisting of linseed oil, soybean oil, castor oil, sunflower seed oil, tall oil, tung oil, corn oil, rapeseed oil, and combinations thereof.

16-23. (cancelled without prejudice)

24. (Currently Amended) A method of altering the appearance of a three-dimensional object formed by a solid freeform fabrication apparatus, the three-dimensional object formed from a build material comprising at least one polymer component, the method comprising the steps of:

- (a) applying a fluid medium to the three-dimensional object at a temperature above the glass transition temperature of the polymer component, the fluid medium carrying an infiltration agent and permeating the three-dimensional object at a temperature above a glass transition temperature of the polymer component;

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- (b) maintaining the application of the fluid medium to the three-dimensional object to allow the infiltration agent to penetrate the three-dimensional object and establish a desired appearance of the three-dimensional object;
- (c) terminating the application of the fluid medium carrying the infiltration agent to the three-dimensional object; and
- (d) the infiltrating agent having the characteristic of one selected from the group consisting of phosphorescent, fluorescent, iridescent, conductive [or] and combinations thereof.